

## REMARKS

### **I. Status of the Application**

Claims 12 – 31 are pending in this application. In the April 15, 2009 Office action, the examiner rejected claims 12 – 31 under 35 U.S.C. § 102(e) as allegedly being anticipated by Lu et al (U.S. Patent Number 6,778,984, referred to hereinafter as “Lu”).

In this response, claim 14 is amended to correct some typographical errors. As set forth below, applicants respectfully traverse the examiner’s rejection of claims 12-31 in view of the following remarks.

### **II. The Rejections Under 35 U.S.C. § 102(e) Should Be Withdrawn**

In the April 15, 2009 Office action, the examiner rejected independent claims 12, 15, 18 and 28 under 35 U.S.C. § 102(e) as being anticipated by Lu. Applicants respectfully traverse the examiner’s rejection of independent claims 12, 15, 18 and 28 under 35 U.S.C. § 102(e).

#### **A. Independent Claims 12, 15, 18 and 28**

##### **1. Claim 12**

Claim 12 defines *inter alia*, “...such that the data has a value corresponding to whether a bitwise comparison of the chunk of the corresponding data key with a portion of the *mask* is equal to a bitwise comparison of the portion of the *mask* and a corresponding portion of the rule....” Applicants respectfully submit that Lu does not disclose this feature.

Lu merely discloses dividing an input key into a plurality of sub-keys and then sequentially comparing the ordering of each sub-key with the same sub-key field of each rule. (See Lu Col. 2 lines 27 – 29). Lu does not disclose any bitwise comparison of the sub-key with a mask. Neither does it disclose any bitwise comparison of the same sub-key field of the rule

with a mask. Clearly, Lu does not disclose all the features defined in claim 12.

In the April 15, 2009 office action, the Examiner discusses the above-referenced element at pages 3 and 4. With reference to these pages, the Office Action does not identify what is considered to be the claimed *mask*, nor where Lu obtains a bitwise comparison of a portion of a rule with a mask. Accordingly, the Office Action does not identify which data “has a value corresponding to whether a bitwise comparison of the chunk of the corresponding data key with a portion of the *mask* is equal to a bitwise comparison of the portion of the *mask* and a corresponding portion of the rule....” Instead, the Office Action appears to only discuss bit-wise comparisons of data chunks with rule portions. Accordingly, is respectfully submitted that the Office Action does not establish a prima facie case of anticipation.

For at least this reason, it is respectfully submitted the examiner’s rejection of claim 12 under 35 U.S.C. § 102(e) should be withdrawn.

## 2. Claim 15

Claim 15 also defines *inter alia*, “....such that the data has a value corresponding to whether a bitwise comparison of the chunk of the corresponding data key with a portion of the *mask* is equal to a bitwise comparison of the portion of the *mask* and a corresponding portion of the rule....” As mentioned above in connection with claim 12, Lu does not disclose this feature.

Furthermore, claim 15 defines *inter alia*, “...*successively* for each of said rules: extracting data from an address...; and examining the data extracted...” Applicants respectfully submit that Lu does not disclose this feature either. Instead, Lu discloses a series of rule vectors, each rule vector indicating all the rules which conform to the input key. For example, using rule 100 in Fig 1 of Lu, a rule vector (0, 3) that corresponds to the sub-key #0 with sub-key value of 3 is {0, 1, 1, 1, 1} which indicates that when bit #1 and bit #0 of the

input key is {1,1}, rule #1, rule #2, rule #3 and rule #4 conform. Clearly, Lu does not successively extract and examine the data for each rule but rather, does so for all the rules simultaneously.

For at least the reasons discussed above, it is respectfully submitted that the examiner's rejection of claim 15 under 35 U.S.C. § 102(e) should be withdrawn.

### 3. Claim 18

Claim 18 defines *inter alia*, "...extract data indicative of whether a bitwise comparison of each chunk of the data key with a corresponding portion of the **mask** is equal to a bitwise comparison of the corresponding portion of the **mask** and the corresponding portion of the rule..." As discussed above in connection with claim 12, Lu does not disclose this feature.

Claim 18 also defines *inter alia*, "...and for **successive rules**, to use the chunks of the data key and the rule as address data to extract data ...." As discussed above in connection with claim 15, Lu does not disclose this feature either.

For at least the reasons discussed above, it is respectfully submitted that the Examiner's rejection of claim 18 under 35 U.S.C. § 102(e) should be withdrawn.

### 4. Claim 28

Claim 28 also defines *inter alia*, "...extract data indicative of whether a bitwise comparison of each chunk of the data key with a corresponding portion of the **mask** is equal to a bitwise comparison of the corresponding portion of the **mask** and a corresponding portion of the rule..." As discussed above in connection with claim 12, Lu does not disclose this feature.

Claim 28 also defines *inter alia*, "...and for **successive rules**, to use the chunks of the data key and the rule as address data to extract data ...." As discussed above in connection with claim 15, Lu does not disclose this feature either.

For at least these reasons, it is respectfully submitted that the examiner's rejection of claim 28 under 35 U.S.C. § 102(e) should be withdrawn.

B. The Rejection of Dependent Claims 13, 14, 16, 17, 19-27, 29-31 Should be Withdrawn

Dependent claims 13, 14, 16, 17, 19-27, 29-31 all depend from and incorporate all the limitations of one of allowable independent claims 12, 15, 18 and 28. Accordingly, it is respectfully submitted that dependent claims 13, 14, 16, 17, 19-27, 29-31 are also allowable for at least the same reasons that independent claims 12, 15, 18 and 28 are allowable.

1. Additional Reasons for Claims 21 and 22

Claim 21 is allowable for additional, independent reasons. Claim 21 defines *inter alia*, “...rules are divided into groups of rules...**each memory device** stores the data corresponding to **one** of the groups of the rules” whereas claim 22 defines *inter alia*, “the memory further comprises a **plurality of memory devices**, rules are divided into groups of rules...**each memory device** stores the data corresponding to **one** of the groups of the rules...” Applicants respectfully submit that Lu does not disclose this feature.

In contrast, Lu discloses that the plurality of rule databases each having a different length and width co-exist in the **same search engine** (See Lu Col. 3 lines 21 – 24). Clearly, even though the rules disclosed in Lu are divided such that each sub-table includes only a portion of the rules, all the rules remain in one search engine. In other words, Lu does not disclose a plurality of memory devices with each memory device storing a portion of the rules. Therefore, claim 21 is novel over Lu for reasons independent of those discussed above in connection with claim 18, from which it depends.

Claim 22 recites a limitation similar to that of claim 21, and is therefore also allowable for the reasons set forth above in connection with claim 21.

**III. Conclusion and Petition for Extension of Time**

For all of the foregoing reasons, it is respectfully submitted that applicants have made a patentable contribution to the art. Favorable reconsideration and allowance of this application, including claims 12-31, is therefore respectfully requested.

Applicant hereby petitions for a two-month extension of time to respond to the April 15, 2009 office action. Authorization to charge the petition fee of \$490 to deposit account 13-0014 is hereby provided. In the event applicant has inadvertently overlooked the need for an extension of time or payment of an additional fee, the applicant conditionally petitions therefore, and authorizes any fee deficiency to be charged to deposit account 13-0014.

Respectfully Submitted,

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